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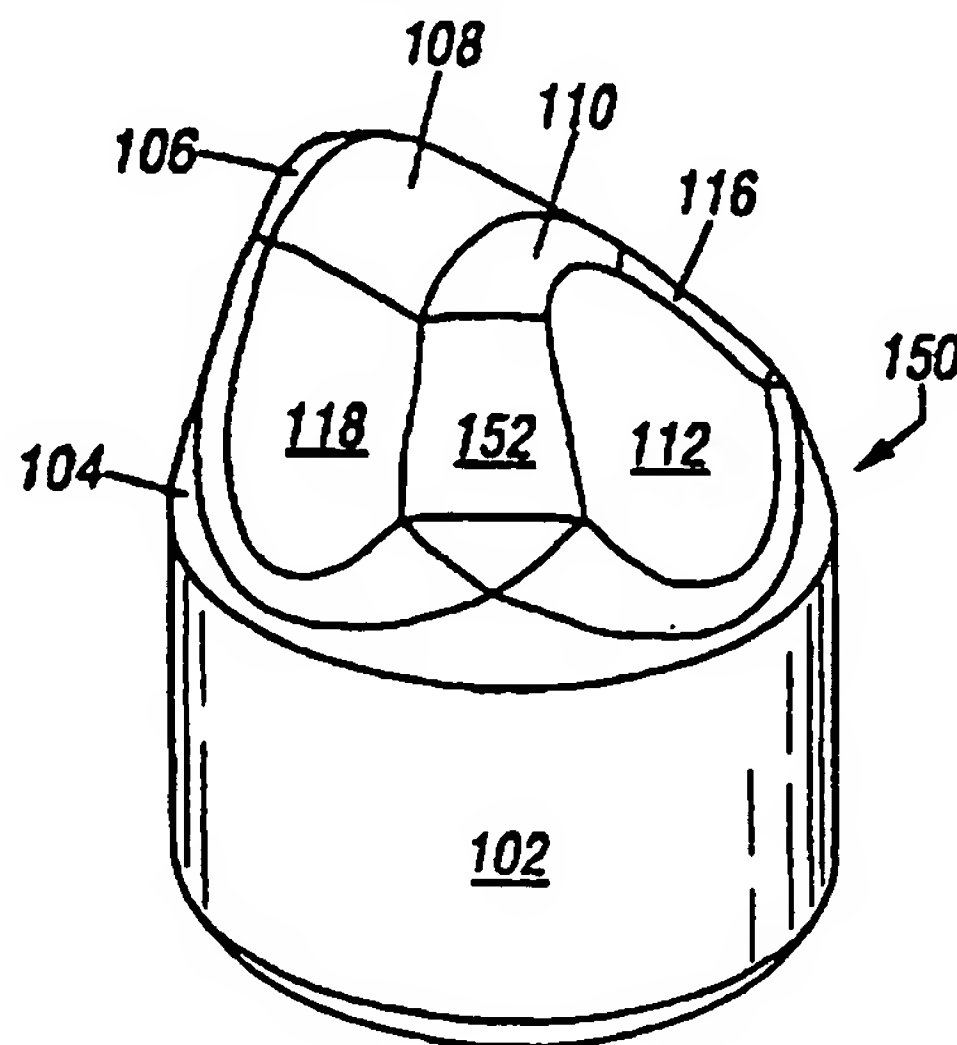
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(54) Abstract Title  
**Non-symmetrical stress-resistant rotary drill bit cutter element**

(57) A cutter element that balances maximum gage-keeping capabilities with minimal tensile stress induced damage to cutter elements is disclosed. The cutter elements (150) of the present invention have a non-symmetrical shape and may include a more aggressive cutting profile than conventional cutter elements. In one embodiment, a cutter element is configured such that the inside angle at which its leading face (114) intersects the wear face (112) is less than the inside angle at which its trailing face (118) intersects the wear face (112). This can also be accomplished by providing the cutter element (160) with a relieved wear face (162). In another embodiment of the invention, the surfaces of the present cutter element (500) are curvilinear and the transitions between the leading (514) and trailing (518) faces and the gage face are rounded or contoured. In this embodiment, the leading transition is made sharper than the trailing transition.



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